

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A region data describing method for describing, over a plurality of frames, region data about a region of an arbitrary object existing in a video, the region data describing method comprising:

extracting position data of a representative point of an approximate figure
approximating the region or a characteristic point of the region from the plurality of frames;
~~determining a function~~ approximating a temporal trajectory ~~which links of~~
corresponding representative points or corresponding characteristic points of successive
frames with a function of time, a coefficient of the function being represented by a parameter;
and

B1 describing the parameter of the function as the region data.

Claim 2 (Original): The region data describing method according to claim 1, further comprising describing information specifying a leading frame or a trailing frame of said plurality of frames as the region data.

Claim 3 (Original): The region data describing method according to claim 2, further comprising describing information of the type of the approximate figure as the region data.

Claim 4 (Original): The region data describing method according to claim 2, further
----- comprising describing information of the number of the approximate figure as the region
data.

Claim 5 (Currently Amended): The region data describing method according to claim 1, further comprising: wherein the parameter includes
describing position data of knots of the trajectory and information specifying the trajectory used together with position data of the knots of the trajectory.

Claim 6 (Original): The region data describing method according to claim 1, wherein a plurality of the representative points or the characteristic points are included in a certain frame, and

the region data includes information specifying correspondence among a plurality of said representative points or characteristic points in the certain frame and a plurality of said representative points or characteristic points in an adjacent frame.

Claim 7 (Original): The region data describing method according to claim 1, further comprising describing related information related to the object or information indicating a method of accessing to the related information.

Claim 8 (Currently Amended): A region data generating apparatus for generating region data about a region of an arbitrary object existing in a plurality of frames of a video, the region data generating apparatus comprising:

an extracting circuit configured to extract position data of a representative point of an approximate figure approximating the region or a characteristic point of the region from the plurality of frames;

~~a function determining an approximating circuit configured to determine a function-~~
~~approaching approximate a temporal trajectory which links of~~ corresponding representative

points or corresponding characteristic points of successive frames with a function of time, a coefficient of the function being represented by a parameter; and

a describing circuit configured to describe the parameter of the function as the region data.

Claim 9 (Original): The region data generating apparatus according to claim 8, wherein said describing circuit describes information specifying a leading frame or a trailing frame of said plurality of frames.

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Claim 10 (Original): The region data generating apparatus according to claim 9, wherein said describing circuit describes information of the type of the approximate figure.

Claim 11 (Original): The region data generating apparatus according to claim 9, wherein said describing circuit describes information of the number of the approximate figure.

Claim 12 (Currently Amended): The region data generating apparatus according to claim 8, wherein the describing circuit further describes ~~parameter includes~~ position data of knots of the trajectory and information specifying the trajectory and used together with position data of the knots of the trajectory.

Claim 13 (Original): The region data generating apparatus according to claim 8, wherein

a plurality of the representative points or the characteristic points are included in a certain frame, and

the region data includes information specifying correspondence among a plurality of said representative points or characteristic points in the certain frame and a plurality of said representative points or characteristic points in an adjacent frame.

Claim 14 (Original): The region data generating apparatus according to claim 8, wherein said describing circuit describes related information related to the object or information indicating a method of accessing to the related information.

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Claim 15 (Currently Amended): A storing medium storing a computer program for describing, over a plurality of frames, region data about a region of an arbitrary object existing in a video, the computer program comprising:

a first program code of extracting position data of a representative point of an approximate figure approximating the region or a characteristic point of the region from the plurality of frames;

a second program code of ~~determining a function~~ approximating a temporal trajectory ~~which links~~ of corresponding representative points or corresponding characteristic points of successive frames with a function of time, a coefficient of the function being represented by a parameter; and

a third program code of describing the parameter of the function.

Claim 16 (Original): The storing medium according to claim 15, wherein
-said-third program code describes information specifying a leading-frame or a trailing-
frame of said plurality of frames.

Claim 17 (Original): The storing medium according to claim 16, wherein

said third program code describes information of the type of the approximate figure.

Claim 18 (Original): The storing medium according to claim 16, wherein
said third program code describes information of the number of the approximate
figure.

Claim 19 (Currently Amended): The storing medium according to claim 15, wherein
the third program code further describes ~~parameter~~ is position data of knots of the trajectory
and information specifying the trajectory and used together with position data of the knots of
the trajectory.

Claim 20 (Original): The storing medium according to claim 15, wherein
a plurality of the representative points or the characteristic points are included in a
certain frame, and

said third program code describes information specifying correspondence among a
plurality of said representative points or characteristic points in the certain frame and a
plurality of said representative points or characteristic points in an adjacent frame.

Claim 21 (Original): The storing medium according to claim 15, wherein
said third program code describes related information related to the object or
information indicating a method of accessing to the related information.

Claim 22 (Original): The storing medium according to claim 15, wherein
the region data comprises identification information of the object, information
specifying a leading frame and a trailing frame of said plurality of frames, information related

to the object, information indicating a method of accessing to the related information, information of the number of the approximate figure, and approximate figure information which includes information of the type of the approximate figure, number information of the representative point, and function data of a spline function approximating the trajectories of the representative point which includes knot information, order information of the spline function, and coefficient information of the spline function.

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Claim 23 (Original): The storing medium according to claim 15, wherein

the region data comprises identification information of the object, information specifying a leading frame and a trailing frame of said plurality of frames, related information related to the object, information indicating a method of accessing to the related information, and characteristic point information which includes information of the number of the characteristic point and function data of a spline function approximating the trajectories of the characteristic point which includes knot information, order information of the spline function, and coefficient information of the spline function.

Claim 24 (New): A region data describing method for describing, over a plurality of frames, region data about a region of an arbitrary object existing in a video, the region data describing method comprising:

extracting position data of a representative point of an approximate figure approximating the region or a characteristic point of the region from the plurality of frames;

approximating a trajectory of corresponding representative points or corresponding characteristic points of at least three successive frames with a function, the function being represented by a parameter; and

describing the parameter of the function as the region data.

Claim 25 (New): The region data describing method according to claim 24, further comprising describing information specifying a leading frame or a trailing frame of said plurality of frames as the region data.

Claim 26 (New): The region data describing method according to claim 25, further comprising describing information of the type of the approximate figure as the region data.

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Claim 27 (New): The region data describing method according to claim 25, further comprising describing information of the number of the approximate figure as the region data.

Claim 28 (New): The region data describing method according to claim 24, further comprising:

describing position data of knots of the trajectory and information specifying the trajectory used together with position data of the knots of the trajectory.

Claim 29 (New): The region data describing method according to claim 24, wherein a plurality of the representative points or the characteristic points are included in a certain frame, and

the region data includes information specifying correspondence among a plurality of
----- said representative points or characteristic points in the certain frame and a plurality of said -----
representative points or characteristic points in an adjacent frame.

Claim 30 (New): The region data describing method according to claim 24, further comprising describing related information related to the object or information indicating a method of accessing to the related information.

Claim 31 (New): A region data generating apparatus for generating region data about a region of an arbitrary object existing in a plurality of frames of a video, the region data generating apparatus comprising:

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COR- an extracting circuit configured to extract position data of a representative point of an approximate figure approximating the region or a characteristic point of the region from the plurality of frames;

an approximating circuit configured to approximate a trajectory of corresponding representative points or corresponding characteristic points of at least three successive frames with a function, the function being represented by a parameter; and

a describing circuit configured to describe the parameter of the function as the region data.

Claim 32 (New): The region data generating apparatus according to claim 31, wherein said describing circuit describes information specifying a leading frame or a trailing frame of said plurality of frames.

Claim 33 (New): The region data generating apparatus according to claim 32, wherein said describing circuit describes information of the type of the approximate figure.

Claim 34 (New): The region data generating apparatus according to claim 32, wherein said describing circuit describes information of the number of the approximate figure.

Claim 35 (New): The region data generating apparatus according to claim 31, wherein the describing circuit further describes position data of knots of the trajectory and information specifying the trajectory and used together with position data of the knots of the trajectory.

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Claim 36 (New): The region data generating apparatus according to claim 31, wherein a plurality of the representative points or the characteristic points are included in a certain frame, and

the region data includes information specifying correspondence among a plurality of said representative points or characteristic points in the certain frame and a plurality of said representative points or characteristic points in an adjacent frame.

Claim 37 (New): The region data generating apparatus according to claim 31, wherein said describing circuit describes related information related to the object or information indicating a method of accessing to the related information.

Claim 38 (New): A storing medium storing a computer program for describing, over a plurality of frames, region data about a region of an arbitrary object existing in a video, the computer program comprising:

a first program code of extracting position data of a representative point of an approximate figure approximating the region or a characteristic point of the region from the plurality of frames;

a second program code of approximating a trajectory of corresponding representative points or corresponding characteristic points of at least three successive frames with a function, the function being represented by a parameter; and

a third program code of describing the parameter of the function.

Claim 39 (New): The storing medium according to claim 38, wherein
said third program code describes information specifying a leading frame or a trailing
frame of said plurality of frames.

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Claim 40 (New): The storing medium according to claim 39, wherein
said third program code describes information of the type of the approximate figure.

Claim 41 (New): The storing medium according to claim 39, wherein
said third program code describes information of the number of the approximate
figure.

Claim 42 (New): The storing medium according to claim 38, wherein the third
program code further describes position data of knots of the trajectory and information
specifying the trajectory and used together with position data of the knots of the trajectory.

Claim 43 (New): The storing medium according to claim 38, wherein
a plurality of the representative points or the characteristic points are included in a
certain frame, and
said third program code describes information specifying correspondence among a
plurality of said representative points or characteristic points in the certain frame and a
plurality of said representative points or characteristic points in an adjacent frame.

Claim 44 (New): The storing medium according to claim 38, wherein

said third program code describes related information related to the object or information indicating a method of accessing to the related information.

Claim 45 (New): The storing medium according to claim 38, wherein

the region data comprises identification information of the object, information specifying a leading frame and a trailing frame of said plurality of frames, information related to the object, information indicating a method of accessing to the related information, information of the number of the approximate figure, and approximate figure information which includes information of the type of the approximate figure, number information of the representative point, and function data of a spline function approximating the trajectories of the representative point which includes knot information, order information of the spline function, and coefficient information of the spline function.

Claim 46 (New): The storing medium according to claim 38, wherein

the region data comprises identification information of the object, information specifying a leading frame and a trailing frame of said plurality of frames, related information related to the object, information indicating a method of accessing to the related information, and characteristic point information which includes information of the number of the characteristic point and function data of a spline function approximating the trajectories of the characteristic point which includes knot information, order information of the spline function, and coefficient information of the spline function.
